Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

2412 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cables

For more Information please call

1-800-Belden1

General Description:

CAT6+ (350MHz), 4-Pair, U/UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Tape Separator, Ripcord, PVC Jacket

Usage (Overall)

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors:	8

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (in.)
0.220

Outer Jacket Ripcord:	Yes

Overall Cable

Overall Cabling Separator Material:	Patented Dielectric Tape
Overall Nominal Diameter:	0.220 in.

Pair

Pair Color Code Chart:

Number	Color
1	White/Blue Stripe and Blue
2	White/Orange Stripe and Orange
3	White/Green Stripe and Green
4	White/Brown Stripe and Brown

Mechanical Characteristics (Overall)

Storage Temperature Range:	-20°C To +75°C
Installation Temperature Range:	+5°C To +50°C
Operating Temperature Range:	0°C To +75°C
Bulk Cable Weight:	24 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	0.750 in.
Min. Bend/Installation:	2.250 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	Third party verified to Category 6

Applicable Patents:

Country
www.belden.com/p

Flame Test

UL Flame Test:	UL1666 Vertical Riser
C(UL) Flame Test:	FT4
CSA Flame Test:	FT4

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	2413

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
17.000

Maximum Capacitance Unbalance (pF/100 m):	330

Nominal Velocity of Propagation:

VP (%)
70

Maximum Delay:

Delay (ns/100 m)
537 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)
35.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
7.800

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
3.000

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.000	75.3	75.3	73.3	73.3	20.000
4	3.700	66.3	66.3	62.6	62.6	23.000

8	5.200	61.8	61.8	56.6	56.6	24.500
10	5.800	60.3	60.3	54.5	54.5	25.000
16	7.400	57.2	57.2	49.9	49.9	25.000
20	8.300	55.8	55.8	47.5	47.5	25.000
25	9.300	54.3	54.3	45.1	45.1	24.300
31.25	10.400	52.9	52.9	42.5	42.5	23.600
62.5	15.000	48.4	48.4	33.4	33.4	21.500
100	19.300	45.3	45.3	26.0	26.0	20.800
155	24.600	42.4	42.4	17.9	17.9	19.500
200	28.300	40.8	40.8	12.5	12.5	18.700
250	32.100	39.3	39.3	7.2	7.2	18.000
300	35.600	38.1	36.1	0.5	0.5	17.500
350	38.900	37.1	35.1	-1.7	-3.7	17.000
400	42.000	36.3	34.3	-5.7	-7.7	16.600
450	45.000	35.5	33.5	-9.5	-11.5	16.200
500	47.900	34.8	32.8	-13.0	-15.0	15.900
550	50.600	34.2	32.2	-16.4	-18.4	15.600

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 15	102 ± 15	70.8	67.8
4	100 ± 15	100 ± 15	58.8	55.8
8	100 ± 15	100 ± 15	52.7	49.7
10	100 ± 15	100 ± 15	50.8	47.8
16	100 ± 15	100 ± 15	46.7	43.7
20	100 ± 15	100 ± 15	44.8	41.8
25	100 ± 15	100 ± 15	42.8	39.8
31.25	100 ± 15	100 ± 15	40.9	37.9
62.5	100 ± 15	100 ± 15	34.9	31.9
100	100 ± 15	100 ± 15	30.8	27.8
155	100 ± 22	100 ± 15	27.0	24.0
200	100 ± 22	100 ± 15	24.8	21.8
250	100 ± 32	100 ± 15	22.8	19.8
300	100 ± 32	100 ± 15	21.3	18.3
350	100 ± 32	100 ± 15	19.9	16.9
400	100 ± 32	100 ± 15	18.8	15.8
450	100 ± 32	100 ± 15	17.7	14.7
500	100 ± 32	100 ± 15	16.8	13.8
550	100 ± 32	100 ± 15	16.0	13.0

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft./1m intervals. Third party verified to ANSI/TIA-568-C.2, Category 6. Values above 350 MHz are for Engineering Informaton Only. In addition to the colors below, Pink is also available as a special, p/n 2412 012 U1000, or 2412 012 A1000.

Reference (Overall)

Previous Part Number: 24566415, 25066515T, 24566745, 24566745T, 24566745T+HU, 24566736T, 24566715, 24566715T, 25066885, 25066885T, 25066815T, 24566945, 24566945T, 24566945T+HU, 24566931, 24566931T, 24566931T+HU, 24566936T, 24566915, 24566915T, 24566915T+HU, 24566015, 24566015T, 24566P15, 24566P15T, 24566185, 24566185T, 24566185T+HU, 24566115T, 24566345, 24566345T, 24566345T+HU, 24566336T, 24566315, 24566315T, 24566315T+HU, 24566485, 24566485T, 24566415T, 24566415T

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2412 002A1000	1,000 FT	27.000 LB	RED	C	CAT6+ 4PR U/UTP CMR RIB
2412 003A1000	1,000 FT	27.000 LB	ORANGE		CAT6+ 4PR U/UTP CMR RIB
2412 003U1000	1,000 FT	24.000 LB	ORANGE		CAT6+ 4PR U/UTP CMR BOX
2412 004A1000	1,000 FT	27.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR RIB
2412 004U1000	1,000 FT	24.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR BOX
2412 0041000	1,000 FT	24.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR REEL
2412 0042500	2,500 FT	60.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR REEL
2412 005A1000	1,000 FT	27.000 LB	GREEN, DARK		CAT6+ 4PR U/UTP CMR RIB
2412 005U1000	1,000 FT	24.000 LB	GREEN, DARK		CAT6+ 4PR U/UTP CMR BOX
2412 0051000	1,000 FT	24.000 LB	GREEN, DARK		CAT6+ 4PR U/UTP CMR REEL
2412 006A1000	1,000 FT	27.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR RIB
2412 006U1000	1,000 FT	24.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR BOX
2412 0061000	1,000 FT	24.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL
2412 0061400	1,400 FT	35.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL

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2412 0062500	2,500 FT	60.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL
2412 0065000	5,000 FT	125.000 LB	BLUE, LIGHT	C	CAT6+ 4PR U/UTP CMR REEL
2412 007A1000	1,000 FT	27.000 LB	VIOLET		CAT6+ 4PR U/UTP CMR RIB
2412 007U1000	1,000 FT	24.000 LB	VIOLET		CAT6+ 4PR U/UTP CMR BOX
2412 008A1000	1,000 FT	27.000 LB	GRAY		CAT6+ 4PR U/UTP CMR RIB
2412 008U1000	1,000 FT	24.000 LB	GRAY		CAT6+ 4PR U/UTP CMR BOX
2412 0081000	1,000 FT	24.000 LB	GRAY		CAT6+ 4PR U/UTP CMR REEL
2412 009A1000	1,000 FT	27.000 LB	WHITE		CAT6+ 4PR U/UTP CMR RIB
2412 009U1000	1,000 FT	24.000 LB	WHITE		CAT6+ 4PR U/UTP CMR BOX
2412 0091000	1,000 FT	24.000 LB	WHITE		CAT6+ 4PR U/UTP CMR REEL
2412 0092500	2,500 FT	60.000 LB	WHITE		CAT6+ 4PR U/UTP CMR REEL
2412 0095000	5,000 FT	125.000 LB	WHITE	C	CAT6+ 4PR U/UTP CMR REEL
2412 010A1000	1,000 FT	27.000 LB	BLACK		CAT6+ 4PR U/UTP CMR RIB
2412 010U1000	1,000 FT	24.000 LB	BLACK		CAT6+ 4PR U/UTP CMR BOX
2412 0101000	1,000 FT	24.000 LB	BLACK		CAT6+ 4PR U/UTP CMR REEL

Notes:
C = CRATE REEL PUT-UP.

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